



Mission: We believe inadequate access to quality healthcare drives many healthcare disparities.

Who we are: Equal Hope’s premier “Equal Care” project was originally named the Chicago Breast Cancer Quality Consortium – a healthcare collaborative seeking to improve the quality of breast care (mammography and breast cancer treatment) at health institutions across Metro Chicago and throughout the State. In so doing, it aims to reduce disparate care and disparate outcomes and to promote an equal chance at survival for all. Equal Care’s projects aim to reducing health disparities and promote health equity for all.

Equal Hope Publications

Article Title: The role of facility and patient mix factors on recovery of screening and diagnostic mammography volumes following the initial COVID-19 pandemic wave.

Article Link:

[Disparities in mammography recovery amidst the COVID-19 pandemic](#)

Research Team: Lomahan, S., Rauscher, G. H., & Murphy, A. M. (2023). The role of facility and patient mix factors on recovery of screening and diagnostic mammography volumes following the initial COVID-19 pandemic wave. *Cancer medicine*, 12(9), 10877–10888.

<https://doi.org/10.1002/cam4.5793>

Research Summary: The research study conducted by Lomahan, Rauscher, and Murphy aimed to understand the recovery of monthly screening and diagnostic mammography volumes in breast cancer facilities in Cook County, Illinois, following the initial wave of the COVID-19 pandemic. The study investigated the factors associated with recovery and explored the impact of facility and patient mix characteristics on mammography volumes. The facilities were able to recover their volumes to pre-pandemic levels, and ZIP code distributions were used to define patient mix characteristics related to disadvantage.

Key Findings:

1. Recovery of Mammography Volumes: The facilities were able to recover their volumes to pre-pandemic levels. However, there were disparities observed in the recovery process based on different factors.
2. Patient Mix Factors: ZIP code distributions were used to define patient mix characteristics related to disadvantage. Facilities serving a predominantly Black population conducted fewer monthly screening mammograms without any increase in monthly diagnostics.
3. Diagnostic Mammograms: While Breast Imaging Centers of Excellence actively triaged diagnostics, lower resource facilities struggled to recover to pre-pandemic volumes without triage. The pandemic disproportionately impacted minority populations with differential access to and utilization of high-quality mammography.
4. Disadvantaged Populations: Facilities serving a predominantly Black population conducted roughly 50 fewer monthly screens without any increase in monthly

diagnostics. Furthermore, ethnic minorities were less likely to undergo screening mammography and experienced delays in diagnostic mammography.

5. **Impact on Healthcare System:** After the initial wave of the pandemic, many healthcare facilities faced challenges in recovering their preventive services to pre-pandemic levels. Increased demand, worker burnout, and safety guidelines impacted hospitals. Facilities reopening after the pandemic struggled to meet the increased demand due to missed screening and diagnostic mammograms.

Recommendations: The study emphasizes the need for policies to facilitate triaging of services during times of stress to the healthcare system, especially in breast cancer facilities. The findings highlight the disparities in mammography access and utilization among ethnic minorities and disadvantaged populations. Strengthening policies and resources can help address these disparities and ensure equitable access to high-quality mammography services.

Article Title: Disparity in breast cancer mortality by age and geography in 10 racially diverse US cities.

Article Link:

[Disparity in breast cancer by age and geography](#)

Research Team: Sighoko, D., Hunt, B. R., Irizarry, B., Watson, K., Ansell, D., & Murphy, A. M. (2018). Disparity in breast cancer mortality by age and geography in 10 racially diverse US cities. *Cancer epidemiology*, 53, 178–183. <https://doi.org/10.1016/j.canep.2018.02.003>

Research Summary: The research study conducted by Sighoko, Hunt, Irizarry, Watson, Ansell, and Murphy aimed to assess the geographic variation in breast cancer mortality disparity by age cohorts in the United States, focusing on ten cities with large African American populations. The study analyzed the racial disparities in breast cancer mortality rates between Non-Hispanic Black (NHB) and Non-Hispanic White (NHW) women.

Key Findings:

1. **Age-Specific Disparities:** The study found that the most pronounced breast cancer disparities, measured by rate ratios (RR), were observed among younger women in all ten cities and across the United States. The disparities were calculated for four age group categories: < 40, 40–49, 50–64, and 65+.
2. **Disparities in Younger Women:** In the age group < 40, the rate ratios ranged from 1.71 in Houston to 5.37 in Washington, DC, indicating a significant disparity in breast cancer mortality between NHB and NHW women.
3. **Less Pronounced Disparities:** For the age group 50–64, the disparity was less pronounced, with rate ratios ranging from 1.24 in New York to 1.72 in Chicago.
4. **Geographic Variation in 65+ Age Group:** In the 65+ age group, there was wide city-to-city variation in breast cancer mortality disparity. Three cities (Baltimore, Washington

DC, and New York) had higher mortality rates for NHW compared to NHB women, indicating a reversal of the disparity trend in this age group.

5. Importance of Addressing Disparities: The study concludes that while the mortality rate for breast cancer is lower among younger women, the racial disparities, as measured by rate ratios, are most pronounced in these age groups. Further research is necessary to understand age-specific racial breast cancer mortality disparities at the city level and develop targeted interventions and policies to address them.

Recommendations: The findings underscore the need for focused efforts to address racial disparities in breast cancer mortality, particularly among younger women. Public health systems, interventions, and policies should be organized at the city level to effectively target and reduce these disparities. Additional research is crucial for a better understanding of the factors contributing to age-specific disparities and to develop tailored interventions for improved breast cancer outcomes.

Article Title: Changes in the racial disparity in breast cancer mortality in the ten US cities with the largest African American populations from 1999 to 2013: The reduction in breast cancer mortality disparity in Chicago

Article Link:

[The reduction in breast cancer mortality disparity in Chicago](#)

Research Team: Sighoko, D., Murphy, A. M., Irizarry, B., Rauscher, G., Ferrans, C., & Ansell, D. (2017). Changes in the racial disparity in breast cancer mortality in the ten US cities with the largest African American populations from 1999 to 2013: The reduction in breast cancer mortality disparity in Chicago. *Cancer causes & control: CCC*, 28(6), 563–568.

<https://doi.org/10.1007/s10552-017-0878-y>

Research Summary: The research study conducted by Sighoko, Murphy, Irizarry, Rauscher, Ferrans, and Ansell aimed to examine the changes in racial disparity in breast cancer mortality in the ten US cities with the largest African American populations from 1999 to 2013. The study specifically focused on the reduction in breast cancer mortality disparity in Chicago and explored the impact of city-wide comprehensive public health initiatives.

Key Findings:

1. Reduction in Breast Cancer Mortality Disparity: The study found that the racial disparity in breast cancer mortality in Chicago decreased over the study period. Between 1999 and 2005, the breast cancer mortality rate among Non-Hispanic Black (NHB) women in Chicago decreased by 13.9%, while the decrease among Non-Hispanic White (NHW) women was 7.7%.
2. Decrease in Disparity Rate: The study observed a drop of 20% in the breast cancer mortality disparity rate in Chicago, with the rate ratio (RR) decreasing from 1.51 to 1.41. This indicates a significant reduction in the disparity between NHB and NHW women in terms of breast cancer mortality.

3. Comparison with National Disparity: From 1999 to 2005, Chicago's breast cancer mortality disparity rate was higher than the national average. However, from 2006 to 2013, the disparity in Chicago became slightly lower than the national average.
4. Comprehensive Public Health Initiatives: The reduction in breast cancer mortality disparity in Chicago was attributed to city-wide comprehensive public health initiatives. These initiatives aimed to address the underlying factors contributing to racial disparities in breast cancer outcomes.
5. Promising Model: The study suggests that Chicago's improvement in NHB breast cancer mortality and disparity reduction can serve as a promising model for other cities facing high health outcome disparities. The city-wide comprehensive public health initiatives implemented in Chicago offer insights into effective strategies for reducing racial disparities in breast cancer mortality.

Recommendations: The findings highlight the importance of implementing comprehensive public health initiatives targeting breast cancer mortality disparities. The success observed in Chicago provides a model for other cities to address racial disparities in breast cancer outcomes. Continued investment in city-wide initiatives, focusing on early detection, access to quality healthcare, and addressing social determinants of health, is crucial for further reducing breast cancer mortality disparities.

Article Title: Trends in Attaining Mammography Quality Benchmarks with Repeated Participation in a Quality Measurement Program: Going Beyond the Mammography Quality Standards Act to Address Breast Cancer Disparities

Article Link:

[Repeated participation in quality measurement program to address breast cancer disparities](#)

Research Team: Rauscher, G. H., Tossas-Milligan, K., Macarol, T., Grabler, P. M., & Murphy, A. M. (2020). Trends in Attaining Mammography Quality Benchmarks with Repeated Participation in a Quality Measurement Program: Going Beyond the Mammography Quality Standards Act to Address Breast Cancer Disparities. *Journal of the American College of Radiology: JACR*, 17(11), 1420–1428. <https://doi.org/10.1016/j.jacr.2020.07.019>

Research Summary: The research study conducted by Rauscher, Tossas-Milligan, Macarol, Grabler, and Murphy focused on examining trends in attaining mammography quality benchmarks through repeated participation in a quality measurement program. The study aimed to address breast cancer disparities by going beyond the requirements of the Mammography Quality Standards Act (MQSA) and implementing specific metrics to measure the quality of mammography.

Key Findings:

1. Data Collection and Participation: The study analyzed data collected from participating breast cancer screening facilities across the state of Illinois over five years (2006, 2009, 2010, 2011, and/or 2013). These facilities provided aggregate data on screening mammograms and corresponding diagnostic follow-up information.

2. **Increase in Benchmarks Met:** The study found that continued participation in the quality improvement program was associated with an increase in the number of benchmarks met for breast cancer screening. The number of facilities able to demonstrate that they met specific benchmarks increased with the length of their participation.
3. **Improvements in Multiple Measures:** Trends towards meeting more benchmarks were observed in several areas, including cancer detection, timely imaging, not lost at biopsy, known minimal status, and proportion of screen-detected cancers that were minimal and early stage. These improvements were statistically significant, highlighting the effectiveness of the quality improvement program.
4. **Addressing Breast Cancer Disparities:** The study emphasizes the need for more rigorous data collection and quality improvement programs to address breast cancer disparities and enhance the quality of mammography screening. By implementing specific metrics and fostering continuous participation, facilities can strive to improve patient tracking, callback/detection rates, and timeliness benchmarks.

Recommendations: The findings underscore the importance of implementing comprehensive quality measurement programs that go beyond the minimum requirements set by the MQSA. To address breast cancer disparities, it is crucial to collect and analyze robust data, track patient outcomes, and continuously strive to meet quality benchmarks. Facilities should prioritize participation in such programs to improve the accuracy, efficiency, and timeliness of breast cancer screening, ultimately enhancing patient outcomes and reducing disparities.

Article Title: Beyond the Mammography Quality Standards Act: Measuring the Quality of Breast Cancer Screening Programs.

Article Link:

[Beyond the Mammography Quality Standards Act-Measuring the Quality of Breast Cancer Screening Programs](#)

Research Team: Rauscher, G. H., Murphy, A. M., Orsi, J. M., Dupuy, D. M., Grabler, P. M., & Weldon, C. B. (2014). Beyond the mammography quality standards act measuring the quality of breast cancer screening programs. *AJR. American journal of roentgenology*, 202(1), 145–151. <https://doi.org/10.2214/AJR.13.10806>

Research Summary: The research conducted by Rauscher, Murphy, Orsi, Dupuy, Grabler, and Weldon focuses on measuring the quality of breast cancer screening programs beyond the guidelines outlined by the Mammography Quality Standards Act (MQSA). The study aimed to assess whether mammography screening facilities could meet specific quality benchmarks to ensure high-quality care for breast cancer screening.

Key Findings:

1. **Insufficiency of MQSA Guidelines:** The study highlights that the MQSA guidelines related to tracking outcomes are inadequate for assessing the quality of care in screening

mammography programs. Additional quality benchmarks are needed to accurately measure the quality of the breast cancer screening process.

2. **Participating Facilities:** The study involved 52 participating facilities that provided aggregate data on screening mammograms conducted in 2009 and corresponding diagnostic follow-up information. The data included tracking outcomes such as lost to follow-up, timing of diagnostic imaging and biopsy, cancer detection rates, and the proportion of cancers detected as minimal and early-stage tumors.
3. **Variability in Benchmark Achievement:** The percentage of institutions meeting each benchmark varied from 27% to 83%. Facilities with American College of Surgeons or National Comprehensive Cancer Network designation were more likely to meet benchmarks related to cancer detection and early detection. On the other hand, Disproportionate Share facilities were less likely to meet benchmarks related to timeliness of care.
4. **Care Quality Issues and Incomplete Tracking:** The results suggest a combination of care quality issues and incomplete tracking of patients with abnormal screening mammograms. Complete tracking of patients is crucial to accurately measure the quality of the breast cancer screening process and interpret results solely in terms of the quality of care provided.

Recommendations: The study highlights the need for comprehensive measurement programs that go beyond the MQSA guidelines to assess the quality of breast cancer screening programs. Facilities should prioritize complete tracking of patients with abnormal screening mammograms to ensure accurate evaluation of care quality. The findings emphasize the importance of meeting specific quality benchmarks, particularly related to cancer detection, early detection, and timely care, to enhance the overall quality of breast cancer screening programs.

Article Title: Regular Screening Mammography Before the Diagnosis of Breast Cancer Reduces Black: White Breast Cancer Differences and Modifies Negative Biological Prognostic Factors

Article Link:

[Regular Screening Mammography Reduces Disparities](#)

Research Team: Grabler, P., Dupuy, D., Rai, J., Bernstein, S., & Ansell, D. (2012). Regular screening mammography before the diagnosis of breast cancer reduces black: white breast cancer differences and modifies negative biological prognostic factors. *Breast cancer research and treatment*, 135(2), 549–553. <https://doi.org/10.1007/s10549-012-2193-3>

Research Summary: The research conducted by Grabler, Dupuy, Rai, Bernstein, and Ansell focus on the impact of regular screening mammography on reducing black-to-white differences in breast cancer outcomes and modifying negative biological prognostic factors. The study aimed to evaluate the stage and biology of breast cancer among women who had undergone screening mammograms regularly compared to those who had irregular or no screening.

Key Findings:



1. **Regular Screening and Early Detection:** The study found no significant black-to-white differences in the proportion of early breast cancers among regularly screened and irregularly screened populations. Regularly screened women received more mammograms compared to irregularly screened women, emphasizing the importance of regular screening in early detection.
2. **Black Women and Improved Prognostic Factors:** Regularly screened black women were less likely to have negative biological prognostic factors, such as estrogen-negative breast cancers, progesterone-negative breast cancers, and poorly differentiated breast cancers. This suggests that regular mammographic screening contributes to improving prognostic factors among black women.
3. **White Women and Prognostic Factors:** Although not statistically significant, white women in the irregularly screened population also had worse prognostic factors compared to white women in the regularly screened population. This implies that regular mammographic screening may have a positive impact on modifying prognostic factors among white women as well.
4. **Implications for Black-to-White Differences:** The study highlights that regular mammographic screening can contribute to narrowing the black-to-white differences in breast cancer presentation. By ensuring equivalent access to screening mammography, the stage at diagnosis of breast cancer can be equivalent for black and white women, regardless of other prognostic factors.
5. **Addressing Disparities and Improving Prognosis:** The study challenges the notion that negative biological prognostic factors alone are responsible for the black-to-white breast cancer mortality differential. It emphasizes the importance of regular screening in reducing disparities and improving overall breast cancer outcomes.

Recommendations: The findings underscore the significance of regular mammographic screening as a crucial preventive measure. Encouraging women, particularly those from minority populations, to undergo regular screening mammograms can contribute to narrowing racial disparities in breast cancer outcomes. The study emphasizes the importance of addressing access barriers and promoting equitable access to screening facilities to ensure early detection and improved prognosis for all women.

Active Equal Hope Mammography Projects

Mammography Radiologist and Technologists Training

Equal Hope hosted three FREE Mammography Technologists Trainings led by Louise Miller, RTRM, Mammography Educators. We had over **200 participants** who attended in April 2023 and were eligible to receive up to 3.5 CEUs.

2023 Statewide Mammography Quality Improvement and Facility Capacity Project



Equal Hope received federal funding to launch and oversee the Statewide Mammography Quality Improvement and Facility Capacity Project for the state of Illinois. Over 90 facilities have expressed interest in the project and as data collection ends, we have collected over 50+ facility capacity and 40+ quality improvement surveys. We will be able to create site-specific reports for each facility identifying which benchmarks are met and areas of improvement. Our goal is to improve the access and quality of breast health care for all people in Illinois.